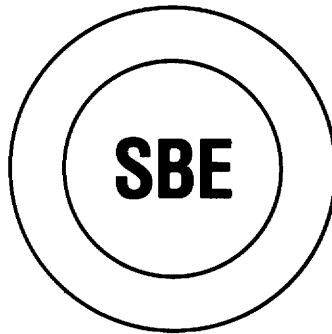


**Comments of the
Society of Broadcast Engineers, Inc.**

**RM-9856
Wireless Video Assist Devices
on Un-Used VHF and UHF
Television Channels**



May 25, 2000

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SOCIETY OF BROADCAST ENGINEERS, INC.
Indianapolis, Indiana

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)	
)	
Petition for Rule Making to Allow)	RM-9856
Wireless Video Assist Devices)	
on Un-Used VHF and UHF)	
Television Channels)	
)	

To: The Commission

Comments of the Society of Broadcast Engineers, Inc.

The Society of Broadcast Engineers, Incorporated (SBE), the national association of broadcast engineers and technical communications professionals, with more than 5,000 members world wide, hereby respectfully submits its comments in the above-captioned Petition for Rule Making relating to Wireless Video Assist Devices operating on un-used VHF TV Channels 7–13, and on UHF TV Channels 14–59.

I. SBE Opposes the AMPTP Petition

1. On March 14, 2000, the Alliance of Motion Picture and Television Producers (“AMPTP”) filed a corrected Petition for Rule Making, proposing to create a new class of stations called wireless video assist devices (“WAVDs”) under Part 74 of the FCC Rules. These proposed WAVDs would operate on “un-used” VHF high-band and UHF TV channels, with an effective radiated power (“ERP”) of up to 2 Watts (33 dBm) at a height of no more than 10 meters AGL.

2. SBE opposes the AMPTP Petition, for four principal reasons: 1) interference to DTV signals; 2) interference to NTSC signals; 3) the Petition is at least ten years too late in regard to the concept of “un-used” TV channels; and 4) broadcasters’ existing use of “un-used” VHF high-band and UHF TV channels for FM wireless microphones is already under severe pressure due to the assignment of previously available TV channels to DTV, and also due to the “displacement applications” of TV Translator, LPTV, and Class A TV stations migrating from Channels 52–69; as a result, now is not the time to exacerbate the FM wireless microphone displacement problem by allowing a new class of station that would occupy the entire 6-MHz channel spectrum (by comparison, a single 6-MHz wide TV channel can accommodate up to 29 FM wireless microphones).

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3. Further, AMPTP Petition clearly envisions a single motion picture producer using more than one 6-MHz wide TV channel: for example, at Section II, Paragraph 1 "...continuously monitor several camera angles...", and at Paragraph 2, "...simultaneously viewing pictures from all of the video assist cameras...". SBE hopes that the Commission understands that the spectrum ("un-used" VHF and UHF television channels) just isn't there, outside of nowhere in the desert, and SBE suspects that such remote locations are the last place that AMPTP plans to use WAVDs; rather, just the opposite: attempts would be made to shoe-horn in WAVDs in already congested areas, with the inevitable resulting increase in interference.

4. Based on the record of certain vendors associated with the sale, lease, rental, and operation of equipment to the motion picture industry, SBE regrettably believes that promises made by the Petitioners and lobbying organizations are meaningless. It is not AMPTP that would be employing WAVDs, but rather a multitude of movie production houses, some of which are tempted to "cut corners" due to marketplace pressures. SBE and its affiliated frequency coordinators have seen equipment offered for general wireless use citing Section 15.237 when the use doesn't remotely comply with the Part 15 limitation for the permissible use of an "auditory assistance device," which Section 15.3 defines as "an intentional radiator used to provide auditory assistance to a handicapped person or persons." SBE and its affiliated frequency coordinators have seen Part 95C (remote control devices) cited as allowing license-free wireless microphone use. The Southern California Frequency Coordinating Committee ("SCFCC") has even seen parking attendants talking to limo drivers at the Academy Awards using wireless microphones operating on TV channels already licensed to *bona fide* wireless microphones used by broadcasters: this equipment had to be yanked so it didn't interfere with that show. Bottom line: if WAVDs are allowed to be built and/or imported, SBE's expectation is that they will be used wherever desired under hit-and-run conditions.

5. And what about those markets where UHF channels have been re-allocated to the land mobile radio services, including public safety uses? For example, Channels 14 & 15 in Chicago, Channels 14 & 16 in Boston, and Channels 16 & 17 in San Francisco?¹ If frequency agile WAVDs are allowed to be marketed and sold, it will only be a matter of time before such devices end up being transported to such areas by a movie/motion picture production

¹ Section 74.709 shows 47 channels in 33 cities where UHF TV channels have been re-allocated for Land Mobile use.

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company, without a clue as to the interference that will be caused, and this includes potential interference to public safety users (meaning that there could be a safety-of-life issue). Of course, the resulting learning curve is likely to be short, but a lot of damage can be caused before the offending users are located and informed of their frequency spectrum *faux pas*. And for short-duration shoots, the offending parties might be finished, and have moved on, before the source of the sudden and unexpected interference can be tracked down.

II. Interference Threat to DTV Reception (and to NTSC Reception)

6. Sections 74.881(e)(1)(i) and (ii) of the existing FM wireless microphone rules limit the antenna input power to 50 mW (17 dBm) for VHF high-band channels, and limit the antenna input power to 250 mW (24.0 dBm) for UHF channels. Although there is no explicit limit on ERP, Section 74.881(f) states that “unusual transmitting antennas or antenna elevations shall not be used to deliberately extend the range of low power auxiliary stations beyond the limited areas defined in Section 74.831; most FM wireless microphones use small, unity-gain (0 dBd) transmitting antennas, meaning that the typical ERPs are no greater than 17 dBm at VHF high-band and no greater than 24 dBm at UHF. The proposed ERP is accordingly 6 to 13 dB higher than typically employed by FM wireless microphones, and this therefore represents an interference threat to viewers attempting to receive DTV signals, and, to a lesser degree, to the reception of conventional NTSC analog signals. The interference threat to DTV is greater than for NTSC because the effects of co-channel or adjacent-channel interference to a nearby DTV receiver from a WAVD is unknown, and a DTV receiver that does not decode an expected DTV signal gives no clue as to the reason for the failure. In contrast, for NTSC a picture can still typically be received in the presence of interference, and much can be learned as to the source of the interference by viewing the degraded (interfered-with) NTSC picture. For example, for NTSC the difference between a noise-limited signal and an interference-limited signal is obvious. Accordingly, SBE submits that now is not the time to be adding further uncertainty to the roll out of DTV by the creation of a new low power auxiliary WAVD service that will be attempting to operate in the same spectrum where new DTV signals will be appearing for the next 12 to 24 months.

7. The Petition only proposes to protect Part 73 users from interference; it is unclear to SBE whether the omission of exiting Part 74 users from the group of stations that WAVDs would have to protect was an oversight, or intentional. Of course, in the event that the Commission nevertheless authorizes WAVDs, such newcomer users would have an obligation to frequency coordinate, and protect, all existing users.

III. Summary

8. SBE believes that the AMPTP Petition is ill-advised and untimely. It represents an interference threat to both DTV and NTSC reception, to properly licensed and frequency-coordinated FM wireless microphone users, and would greatly exacerbate the spectrum pressures now being placed on users of existing FM wireless microphones. The FCC does not need to create a video version of LPFM. SBE urges the Commission NOT to proceed to the NPRM stage, and to terminate this proceeding with no further action.

Respectfully submitted,

Society of Broadcast Engineers, Inc.

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SBE President

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